WE CLAIM:

1.   A wireless e-mail system comprising:

a wireless mobile device comprising an e-mail client;

an e-mail server;

a gateway;

a wireless network interconnecting said wireless mobile device and said
     gateway; and

a broadband network interconnecting said gateway and said e-mail
     server;

wherein when said client transmits a single self-contained request to
     said gateway via said wireless network to retrieve a set of e-mail
     related information from said e-mail server, said gateway
     retrieves at least said e-mail related information from said e-mail
     server via said broadband network using a plurality of
     transactions, compiles said retrieved information into a single self
     contained response and transmits said single response via said
     wireless network to said e-mail client.

2.   The wireless e-mail system as in Claim 1, wherein said self-
contained request and said single response form a stateless request-response
pair.

3.   The wireless e-mail system as in Claim 1, wherein said e-mail
server is an IMAP server and said gateway further comprises an IMAP client
application for communicating with said IMAP server.

4.   The wireless e-mail system as in Claim 1, wherein said e-mail
server is a POP3 server and said gateway further comprises an POP3 client
application for communicating with said POP3 server.

5.   The wireless e-mail system as in Claim 1, wherein said e-mail server is an SMTP compatible server and said gateway further comprises an SMTP client application for communicating with said SMTP compatible server.

6.   The wireless e-mail system as in Claim 1, wherein said gateway further comprises an application for monitoring e-mail traffic.

7.   The wireless e-mail system as in Claim 1, further comprising a mobile operator network, wherein said gateway is an extension of said mobile operator network.

8.   The wireless e-mail system as in Claim 1, wherein said single self-contained request and said single self contained response are transmitted using HTTP.

9.   The wireless e-mail system as in Claim 1, wherein said single self-contained request and said single self contained response are implemented using an XML structure.

10.   A gateway interconnecting a wireless mobile device and an e-mail server, the wireless mobile device comprising an e-mail client and adapted for data communication with a wireless network, the e-mail server adapted for data communication with a broadband network, the gateway comprising:
        a first stateless interface interconnected with the wireless network;
        a second interface interconnected with the broadband network; and
        a channel management function;
        wherein when the e-mail client transmits a single self-contained request to said first interface via said wireless network to retrieve a set of e-mail related information from the e-mail server, said channel management function retrieves at least said e-mail related information from the e-mail server via said second interface and the broadband network using a plurality of transactions, compiles said retrieved information into a single

self contained response and transmits said single response via said first interface and the mobile network to the e-mail client.

11.   The gateway as in Claim 10, wherein the e-mail server is an IMAP server, and said second interface is an IMAP interface.

12.   The gateway as in Claim 10, wherein the e-mail server is a POP3 server, and said second interface is a POP3 interface.

13.   The gateway as in Claim 10, further comprising an e-mail traffic monitoring application.

14.   The gateway as in Claim 10, wherein said single self-contained request and response are transmitted using HTTP and said first interface is an HTTP interface.

15.   A method for retrieving e-mail related information from an e-mail server via a communications system comprising a wireless network and a broad band network, the method comprising the steps of:

in a client e-mail application on a wireless mobile device, forming a single request for the e-mail related information;

transmitting said single request to a gateway via the wireless network, said gateway retrieving at least the e-mail related information from the server via the broadband network using a plurality of transactions, wherein said gateway compiles said retrieved information into a single response;

transmitting said single response to said client application via said wireless network; and

in said client application, retrieving the e-mail related information from said response.

16.   The method of Claim 15, wherein the e-mail related information is located in a mailbox on the server, wherein said request comprises a mailbox ID and further wherein said retrieving step comprises logging onto the server using the mailbox ID and downloading the requested e-mail related information.

17.   The method of Claim 15, wherein the e-mail related information is located in a mailbox on the server, wherein said gateway periodically determines if new e-mail is available in said mailbox and further wherein if at least one new e-mail message is available in said mailbox, said gateway transmits a new e-mail message notification to said client application via said wireless network.

18.   The method of Claim 15, wherein the e-mail server is an IMAP server, said mailbox has a mailbox name and said periodic determining step comprises transmitting a SELECT command including said mailbox name to the server.

19.   The method of Claim 15, wherein the e-mail server is a POP3 server, said mailbox has a mailbox name and said periodic determining step comprises transmitting a UIDL command including said mailbox name to the server.

20.   The method of Claim 17, wherein said new e-mail message notification transmitting step comprises appending said new e-mail message notification to a subsequent single response.

21.   The method of Claim 17, wherein said wireless mobile device is an SMS compatible device and said new e-mail message notification transmitting step comprises transmitting said new e-mail message notification to said client e-mail application using SMS.

22. The method of Claim 17, wherein said wireless mobile device is a WAP compatible device and said new e-mail message notification transmitting step comprises transmitting said new e-mail message notification to said client e-mail application using WAP.

23. The method of Claim 17, wherein for each said new e-mail message said gateway retrieves at least a message sender and a message subject and appends said message sender and a message subject to a new e-mail list and wherein said new e-mail message notification comprises said new e-mail list.

24. The method of Claim 17, wherein said gateway determines a quantity of new e-mail messages available in said mailbox and said new e-mail message notification comprises said quantity.

25. A method for retrieving e-mail related information from an e-mail server via a communications system comprising a wireless network and a broad band network, the method comprising the steps of:

    providing an e-mail gateway comprising a first stateless interface interconnected with the wireless network and a second interface interconnected with the broadband network;

    in a client e-mail application on a wireless mobile device, transferring a single request for the e-mail related information to said first interface via the wireless network;

    in said gateway:

        receiving said request at said first interface;

        retrieving at least the requested e-mail related information from the server via the broadband network using a plurality of transactions;

        compiling said retrieved information into a single response; and

        transmitting said single response to said client application via said first interface and said wireless network; and

in said client application, retrieving the e-mail related information from said response.

26.   The method of Claim 25, wherein the e-mail related information is located in a mailbox on the server, wherein said request comprises a mailbox ID and further wherein said retrieving step comprises logging onto the server using the mailbox ID and downloading the requested e-mail related information.

27.   The method of Claim 25, wherein the e-mail related information is located in a mailbox on the server, wherein said gateway periodically determines if new e-mail is available in said mailbox and further wherein if at least one new e-mail message is available in said mailbox, said gateway transmits a new e-mail message notification to said client application via said wireless network.

28.   The method of Claim 25, wherein the e-mail server is an IMAP server, said mailbox has a mailbox name and said periodically determining step comprises transmitting a SELECT command including said mailbox name to the server.

29.   The method of Claim 25, wherein the e-mail server is a POP3 server, said mailbox has a mailbox name and said periodically determining step comprises transmitting a UIDL command including said mailbox name to the server.

30.   The method of Claim 27, wherein said new e-mail message notification transmitting step comprises appending said new e-mail message notification to a subsequent single response.

31.   The method of Claim 27, wherein said wireless mobile device is an SMS compatible device and said new e-mail message notification

transmitting step comprises transmitting said new e-mail message notification to said client e-mail application via SMS.

32. The method of Claim 27, wherein said wireless mobile device is a WAP compatible device and said new e-mail message notification transmitting step comprises transmitting said new e-mail message notification to said client e-mail application using WAP.

33. The method of Claim 27, wherein for each said new e-mail message said gateway retrieves at least a message sender and a message subject and appends said message sender and a message subject to a new e-mail list and wherein said new e-mail message notification comprises said new e-mail list.

34. The method of Claim 27, wherein said gateway determines a quantity of new e-mail messages available in said mailbox and said new e-mail message notification comprises said quantity.

35. A method for logging e-mail data traffic between at least one wireless mobile device comprising a client e-mail application and an e-mail server interconnected by a wireless mobile operator network and a broadband network, the mobile network comprised of a wireless network and a ground network, the wireless network interconnecting the at least one wireless mobile device and the ground network and wherein the e-mail data traffic comprises at least one request for e-mail related information generated by the client e-mail application, the method comprising the steps of:

        providing an e-mail gateway between the ground network and the broadband network;

        for each request generated by the client e-mail application, transferring the request to said gateway via the wireless network; and

        in said gateway:

            receiving each request;

logging each received request;

retrieving at least the requested e-mail related information from the e-mail server;

compiling said retrieved information into a single response;

logging said single response; and

transmitting said single response to said client application via said wireless network.

36.   The method of Claim 35, wherein said request logging step comprises storing the number of bytes of each request.

37.   The method of Claim 35, wherein said response logging step comprises storing the number of bytes of each response.